

H 3381 PCT/US  
Serial No. 09/787,248

## REMARKS

### Status of Claims

Claims 15-35 are pending in this application. Claims 15, 18, 19 and 34 are hereby amended to limit the amorphous poly alpha olefin (APAO) component to a *mixture* of APAO's (support for which may be found on page 6, lines 1-9 of the specification as filed). Claims 15 and 34 are amended to further limit the oil component by designating a specific viscosity range (support for which may be found on page 6, lines 10-12 of the specification as filed). Claim 34 is further amended so as to correspond with the amendment previously made to claim 15.

### Rejections

Claims 15-20 and 22-35 stand rejected under 35 USC 103(a) as being unpatentable over Suzuki et al. (US '333), as evidenced by Iwami et al. (US Publication 2001/00371670A1) and in view of Kehr et al. (US '014). Applicants respectfully traverse

Suzuki et al. disclose a hot melt adhesive composition that contains more than 20%, by weight, of a *single* amorphous poly- $\alpha$ -olefin, up to 20%, by weight, of an oil component and from 30 to 70%, by weight, of a hydrocarbon resin tackifier. Applicants have amended their claims by limiting the description of the APAO component to a *mixture* of APAO's for the purpose of further distinguishing over Suzuki et al.

**H 3381 PCT/US**  
**Serial No. 09/787,248**

The Examiner notes that this reference does not disclose the softening temperature of the hydrocarbon resin tackifier and therefore utilizes the disclosure of Iwami et al. to provide such information. The resin tackifier identified is Clearon P105, which, according to the secondary reference, has a softening point of 105°C. Applicants respectfully point out that the information pertaining to the softening temperature of Clearon P105 was not available to the skilled practitioner at the time the present application was filed. Iwami et al. was filed on March 15, 2001. However, the present application has a priority filing date of September 21, 1998, fully two and a half years prior to the availability of the information cited by the Examiner. It is respectfully submitted that Iwami et al. should therefore not be used to support the present rejection. The physical characteristics of the product that was designated in Suzuki et al. solely by trade name are uncertain because of the many variations in processing conditions that can occur within different production runs including the use of different sources for the raw materials.

Suzuki et al. indicate the significance of mixing into their adhesive formulation a softener that has a softening point of no more than 10°C. The softeners can be selected from mineral oil, polybutene and liquid tackifying resins. Interestingly, if the patentees were concerned enough about the softening temperature range of their softeners, then why did they omit any consideration of the softening temperature with regard to the APAO or the hydrocarbon resin tackifier?

The viscosity of the adhesive of Suzuki et al. is 500 to 10,000cps, preferably 1000 to 8000 cps at 180°C (column 8, lines 22-29). In contrast, the adhesive of Applicants's invention is 500 to 4000 mPas at 150°C. As is well known, a decrease of 10°C approximately doubles the viscosity. Therefore, the viscosity of the adhesive of Suzuki et al. is significantly higher than the viscosity of Applicants' adhesive.

**H 3381 PCT/US**  
**Serial No. 09/787,248**

Kehr et al. disclose a process for producing APAO's within a narrow molecular weight range. The patentees disclose that the product produced by their process is particularly useful as "heavy coating compounds for carpets" (col. 2, lines 47-48). They disclose a preference for high viscosities (kindly note Tables 1 and 2). There is therefore no incentive, absent Applicants' own disclosure, to have combined this secondary reference with Suzuki et al. Applicants' stated purpose of seeking a storage stable adhesive having superior initial adhesion for use with heat sensitive substrates is neither disclosed nor suggested by either of these two references.

Claims 15 and 21 are rejected under 35 USC 103(a) as being unparentable over Suzuki et al., as evidenced by Iwami et al. and in view of Simmons et al. Applicants respectfully traverse and request the withdrawal of this rejection.

Applicants' prior remarks pertaining to Suzuki et al. and Iwami et al. apply to this rejection, as well, and will not be repeated below for the sake of brevity. With regard to Simmons et al., their APAO is formulated using metallocen catalysts which results in an adhesive having different properties than the adhesive of Applicants. Further, one of the additives in the hot melt adhesive of this reference (please refer to Table A on page 28) is a *solid* plasticizer. However, the plasticizers required in the adhesive formulation of Suzuki et al. require "a softening point of 10°C or below" (col 8, line 1). Thus, at room temperature, the plasticizer of Suzuki et al. is a liquid, not a "solid", as required by Simmons et al. The practitioner of the invention of Suzuki et al. would not therefore be inclined to incorporate the plasticizer of Simmons et al. into a hot melt adhesive formulated according to Suzuki et al. because of this contradictory teaching. There is no suggestion or incentive to combine these two references for this purpose.

**H 3381 PCT/US**  
**Serial No. 09/787,248**

Claims 34 and 35 are rejected under 35 USC 103(a) as being unpatentable over Lindquist et al. in view of Alper et al. Applicants respectfully traverse. In essence, there is no motivation to combine the teachings of both of these patents. Lindquist et al. disclose the use of styrene-isoprene block copolymers in a hot melt adhesive formulation having *low cohesive strength* (please note the title; emphasis added: "COHESIVELY FAILING HOT MELT PRESSURE SENSITIVE ADHESIVE") In contradistinction, Alper et al. is directed to hot melt construction adhesives formulated to "impart a high degree of specific adhesion to the adhesives, *without a simultaneous loss of cohesive strength*,...(emphasis added)". Column 4, lines 36-39. There is absolutely no reason why the skilled practitioner would ever consider employing the adhesives of Lindquist et al. for use in the manufacture of sanitary products as disclosed by Alper et al. The divergent teachings of these two references fails to support their combination as the basis for these grounds for rejection. The withdrawal of this rejection is therefore respectfully requested.

Claims 15, 24, 25, 27 and 29 are rejected under 35 USC 103(a) as being unpatentable over Foster et al. Applicants respectfully traverse. Foster et al. disclose a hot melt adhesive that contains an amorphous propylene/hexene copolymer, a tackifier and a substantially crystalline hydrocarbon wax. The Examiner alleges that since the softening temperature of the adhesive and the hydrocarbon wax are indicated as being substantially the same, then the softening temperature of the amorphous propylene/hexene copolymer must also fall within the same range. However, it is not clear from the teaching of this disclosure that this is the case. At least one liquid tackifier is present within the formulation of Foster et al., the tackifier having a softening point of "from about 5°C to about 30°C". When this teaching is taken into consideration, it does not logically follow that the softening temperature of the copolymer must fall within the range indicated by the Examiner. The softening temperature of the copolymer is an unknown variable. This unknown renders the

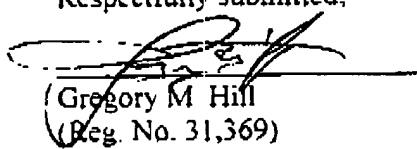
H 3381 PCT/US  
Serial No. 09/787,248

APAO of Foster et al. indefinite. The APAO of Applicants' invention cannot therefore be obvious from the indefinite APAO of Foster et al. Accordingly, the withdrawal of this rejection is respectfully requested

#### CONCLUSION

Applicants respectfully request the favorable reconsideration of all grounds of rejections set forth in the Office Action of February 26, 2003 and earnestly solicit the issuance of a notice of allowability. If necessary, the Commissioner is authorized to charge any deficiency in the required fee or to credit any overpayment made in connection with this amendment to Deposit Account 01-1250

Respectfully submitted,

  
Gregory M. Hill  
(Reg. No. 31,369)  
Attorney for Applicant(s)  
(610) 278-4964

Henkel Corporation  
Patent Department  
2500 Renaissance Blvd., Suite 200  
Gulph Mills, PA 19406

FAX RECEIVED  
MAY 27 2003  
GROUP 1700